

Donata Cattaneo – Curriculum vitae

Current Appointment: Associate Professor

Department of Health, Animal Science and Food Safety
Università degli Studi di Milano (Italy)

Field of Specialization: Advances in Animal Nutrition

Academic Qualifications

- 1983 Graduate in Agricultural Sciences with full marks (110/110), Università degli Studi di Milano
- 1993 Doctorate (PhD) in Biotechnology applied to Veterinary Sciences and Animal Husbandry, Università degli Studi di Milano.

Academic and Scientific Career

- 1985-1986 Postgraduate, Institute of Animal Nutrition, Faculty of Agriculture, Università Cattolica del Sacro Cuore, Piacenza (Italy)
- 1989-1992 PhD studentship in Biotechnology applied to Veterinary Sciences and Animal Husbandry, Università degli Studi di Milano
- 1994 -1996 Postdoctoral Fellowship, "Interactions between nutritional status and growth hormone (GH) activity", Institute of Animal Nutrition, Faculty of Veterinary Medicine, Università degli Studi di Milano
- 1993 -1997 (for 12 months) Postdoctoral Visiting Scientist, Laboratory of Nutrient-Cell-Gene Interactions, The Babraham Institute, Cambridge (UK) "Nutritional regulation of growth hormone receptor gene expression"
- 1999-2003 Research Fellowship "Nutrition of periparturient dairy ruminants: role of energetic dietary sources ". Department of Veterinary Sciences and Technologies for Food Safety, Università degli Studi di Milano
- 1998 -2004 Contract Lecturer, Faculty of Veterinary Medicine, Università degli Studi di Milano
- 2005 - Associate Professor
Faculty of Veterinary Medicine, Università degli Studi di Milano

Teaching Activity (courses held at the Università degli Studi di Milano)

Undergraduate and Master programmes :

- 1998/99 Biotechnology and Animal Nutrition
- 2002-2004 Food Biotechnology
- 2004/05 Functional Foods and Feeds
- 2005/06 Dietetic Feeds
- 2005-2011 Small Ruminants
- 2007-2010 Genetically Modified Organisms
- 2010-2011 Molecular Aspects of Nutrition
- 2011-2014 Conventional and GM feeds
- 2011- Livestock Nutrition in Pasture-Based systems
- 2013- Small Ruminants: Nutrition and Product Quality
- 2015- Feed Nutritional Value

Doctoral (PhD) programmes:

- 2005-2011 *In vitro* models applied to animal production
Doctoral (PhD) School in Health and Animal Production: Science, Technologies and Biotechnologies
- 2006-2013 Molecular Diagnostics: applications in nutritional genomics studies
Doctoral (PhD) School of Veterinary Sciences for Health and Food Safety

Major Areas of Interest

- Nutritional and health properties of milk from ruminant species
- Interactions between animal nutrition and health: functional foods, nutraceuticals, bioactive lipids (n-3 fatty acids, CLA).
- Nutrition and gene expression, interactions between genes and food bioactive components
- Food safety

Other activities

- Teaching Staff Member of the PhD in Biotechnology Applied to Veterinary Sciences and Animal Husbandry, Università degli Studi di Milano
- Invited lecturer at international meetings and workshops:
2004: *Desertification Combat and Food Safety - The Added Value of Camel Producers*. NATO Advanced Research Workshop, Ashkabad (Turkmenistan)
2007: *Impact of Pollution on Animal Products*. NATO Programme: Science for Peace and Security. Advanced Research Workshop, Almaty (Kazakhstan)
- Invited professor: 2011: *1st International Food Safety School* (bachelor-master-doctorate level)- Al-Farabi Kazakh National University, Almaty (Kazakhstan)
- 2013-2017: UNIMI coordinator of EU Tempus Capacity Building project "TradPro – Development and Implementation of Master Programmes in Food Safety and the Production and Marketing of TRADitional Food PROducts in Russia and Kazakhstan"
- Scientific Referee for "*International Dairy Journal*", "*Journal of Dairy Research*", "*Italian Journal of Animal Science*", "*Journal of Food Composition and Analysis*", "*Small Ruminant Research*", "*Dairy Science and Technology*", "*Canadian Journal of Zoology*".
- Secretariat of the Post-graduate *Specialisation School in Animal Nutrition* – Università degli Studi di Milano

International collaborations

- Dr Margaret Joy Dauncey - Wolfson College, University of Cambridge, UK
- Dr Bernard Faye - Centre International en Recherche Agronomique pour le Development (CIRAD), Montpellier, France.
- Prof Gaukhar Konuspayeva, - Al Farabi Kazakh National University, Faculty of Biology, Almaty, Kazakhstan.
- Montpellier Supagro - Montpellier, France.

Publications

Author of more than 100 scientific publications (in peer reviewed journals, conference proceedings, chapter of books, scientific & technical periodicals in the field of specialization)

Additional qualifications

1974: Certificate of Proficiency in English (CPE) - University of Cambridge (UK)

Most relevant publications

- Dell'Orto V., Savoini G., Salimei E., **Cattaneo D.**, Secchi C., Rosi F. (1993). Effects of recombinant bovine somatotropin (rbST) on productive and physiological parameters related to dairy cow welfare. *Livestock Production Science*, 36: 71-75.
- **Cattaneo D.**, Salimei E., Savoini G., Baldi A., Cheli F., Fantuz F., Dell'Orto V. (1993). Effect of recombinant bovine somatotropin and calcium soaps on milk yield and composition. *Zootecnica e Nutrizione Animale*, 19: 185-196.
- Dauncey M.J., Burton K.A., White P., Harrison A.P., Gilmour R.S., Duchamp C., **Cattaneo D.** (1994). Nutritional regulation of growth hormone receptor gene expression. *The FASEB Journal* 8: 81-88
- **Cattaneo D.**, Salimei E., Savoini G., Vergani F., Oltenacu P.A., Dell'Orto V. (1995). Bovine somatotropin and reproduction: a management hypothesis. *Selezione Veterinaria*, 36: 661-672
- Katsumata M., Burton K.A., White P., **Cattaneo D.**, Dauncey M.J. (1997). Growth hormone receptor gene expression is related to metabolic and contractile properties of muscle. *Journal of Endocrinology*, 152: P125
- **Cattaneo D.**, Salimei E., Rosi F., Savoini G., Sgoifo Rossi C.A., Dell'Orto V. (1997). Responses of dairy cows to bovine somatotropin and protein sources with different rumen degradability. *Zootecnica e Nutrizione Animale*, 23: 245-255.
- Cheli F., Baldi A., Gregoretto L., Rosi F., **Cattaneo D.**, Dell'Orto V. (1998). Changes of plasma insulin, urea, amino acids and rumen metabolites in somatotropin treated cows. *Amino acids*, 15: 187-194.
- Cheli F., Baldi A., Gregoretto L., Fantuz F., **Cattaneo D.**, Dell'Orto V. (1998). Effect of methionine and lysine on proliferation, plasminogen activator activity and protein synthesis in a bovine mammary epithelial cell line. *Zootecnica e Nutrizione Animale*, 24: 193-200.
- White P., **Cattaneo D.**, Dauncey M.J. (2000). Postnatal regulation of myosin heavy chain isoform expression and metabolic enzyme activity by nutrition. *British Journal of Nutrition*, 84: 185-194.
- Katsumata M., **Cattaneo D.**, White P., Burton K.A., Dauncey M.J. (2000). Growth hormone receptor gene expression in porcine skeletal and cardiac muscles is selectively regulated by postnatal undernutrition. *Journal of Nutrition*, 130: 2482-2488.
- Dell'Orto V., **Cattaneo D.**, Beretta E., Baldi A., Savoini G. (2000). Effects of trace element supplementation on milk yield and composition in camels. *International Dairy Journal*, 10: 873-879.
- Cattaneo D.**, Dell'Orto V., Varisco G., Cigalino G., Agazzi A., Moroni P., Savoini G. (2002). Use of nutraceuticals in organic dairy goat farming: effects of dietary fish oil during the peripartum on colostrum and milk composition. In "Organic Meat and Milk from Ruminants. Proceedings of a joint International EAAP/BSAS Conference, Athens, Greece, October 2001", Wageningen Academic Publishers, The Netherlands: 193-195
- Savoini G., **Cattaneo D.**, Paratte R., Varisco G., Bronzo V., Moroni P., Pisoni G. (2003). Dietary rosemary extract in dairy goats organically managed: effects on immune response, mammary infections and milk quality. *Italian Journal of Animal Science*, 2 (Suppl. 1): 548-550
- Agazzi A., **Cattaneo D.**, Dell'Orto V., Moroni P., Bonizzi L., Pasotto D., Bronzo V., Savoini G. (2004). Effect of administration of fish oil on aspects of cell mediated immune response in periparturient dairy goats. *Small Ruminant Research*, 55: 77-83.
- Cattaneo D.**, Dell'Orto V., Fava M., Savoini G. (2005). Influence of feeding on camel milk components. In: *Desertification combat and food security. The added values of camel producers*, B.Faye and P. Esenov (eds.) IOS Press, NATO Science Series, Amsterdam, The Netherlands: 181-186.
- Cattaneo D.**, Dell'Orto V., Varisco G., Agazzi A., Savoini G. (2006). Enrichment in n-3 fatty acids of goat's colostrum and milk by maternal fish oil supplementation. *Small Ruminant Research*, 64: 22-29.
- Stella S., Tedesco D., Barbieri C., Garavaglia L., **Cattaneo D.** (2007). Evaluation of antimicrobial effects on monogastric gut microflora by plant waste products. *J. Anim. Sci.*, 85 (Suppl.1): 65.
- Stella S., Tedesco D., Barbieri C., Garavaglia L., **Cattaneo D.** (2007). Effect of metabolizable protein and energy intake on amino acid metabolism in growing dairy calves. *J. Anim. Sci.*, 85 (Suppl.1): 65.
- Tedesco D., Stella S., **Cattaneo D.**, Garavaglia L., Barbieri C. (2007). *In vitro* methods to evaluate the effects of plant waste products on rumen and gut microflora. *Italian Journal of Animal Science*, 6 (Suppl. 1): 370 – 372.
- Cattaneo D.**, Invernizzi G., Ferroni M., Agazzi A., Rebutti R., Baldi A., Dell'Orto V., Savoini G. (2008). Selenium and poultry products: nutritional and safety implications. In: *Impact of pollution on animal*

products, Bernard Faye and Yuriy Sinyavskiy (eds.), Springer Science + Business Media B.V., Dordrecht, The Netherlands: 133-141.

- Savoini G., Agazzi A., Invernizzi G., **Cattaneo D.** (2008). Use of fats in dairy goat nutrition: effects on milk characteristics and animal health. *Large Animal Review 14 (Suppl. 4)* : 142-143
- Savoini G., Agazzi A., Invernizzi G., **Cattaneo D.**, Pinotti L., Baldi A. (2010). Polyunsaturated fatty acids and coline in dairy goats nutrition: production and health benefits. *Small Ruminant Research*, 88: 135-144.
- Cattaneo D.**, Ferroni M., Caprino F., Moretti V., Agazzi A., Invernizzi G., Savoini G. (2010). Dietary fats in transition dairy goats: effects on milk fatty acid composition. In: *Energy and protein metabolism and nutrition - 3rd EAAP International Symposium on Energy and Protein Metabolism and Nutrition*. Parma (Italy), 6 -10 September 2010. EAAP Publication No. 12. G. Matteo Crovetto (ed.), Wageningen Academic Publishers, The Netherlands: 667-668.
- Agazzi A., Invernizzi G., Campagnoli A., Ferroni M., Fanelli A., **Cattaneo D.**, Galmozzi A., Crestani M., Dell'Orto V., Savoini G. (2010). Effect of different dietary fats on hepatic gene expression in transition dairy goats. *Small Ruminant Research*, 93: 31-40
- Cattaneo D.**, Ferroni M., Caprino F., Moretti V., Agazzi A., Savoini G. (2012). Temporal variations of conjugated linoleic acid (CLA) in goat's milk. In: *Special Issue of the International Dairy Federation No. 1201*. IDF International Symposium on Sheep, Goat and other non-Cow milk. 16-18 May 2011, Athens, Greece. International Dairy Federation Special Issue No. 1201: 161-164
<http://www.fil-idf.org/Public/PublicationsPage.php?ID=27121#list>
- Farina G., **Cattaneo D.**, Lecchi C., Invernizzi G., Savoini G., Agazzi A. (2015). A review on the role of EPA and DHA through goat nutrition to human health: could they be effective both to animals and humans? *Journal of Dairy, Veterinary & Animal Research*, 2 (2): 35-39. <https://doi.org/10.15406/jdvar.2015.02.00027>
- Agazzi A. and **Cattaneo D.** (2016). Consolidated properties and new perspectives for polyunsaturated fatty acids in ruminant diet. *Journal of Dairy, Veterinary & Animal Research*, 4 (1): 1-4.
<https://doi.org/10.15406/jdvar.2016.04.00106>
- Savoini G., Farina G., Dell'Orto V., **Cattaneo D.** (2016). Through ruminant nutrition to human health: role of fatty acids. *Advances in Animal Biosciences*, 7 (2): 199-206
- Hiwot D Wodajo, Savoini G., **Cattaneo D.**, Gabriella S, Martino P. (2016). Bacteriological quality of milk in raw bovine bulk milk in the selected milk collection centers: smallholder dairy processing Ethiopia. *Journal of Veterinary Science & Animal Husbandry* , 4 (2): 201. doi: 10.15744/2348-9790.4.2016
- Savoini G., Dell'Orto V., Farina G., **Cattaneo D.** (2018). Nutrients for animal health and for improvement of nutritional quality of animal products for human consumption. In: *Atti dell'Accademia dei Georgofili 2016 – Serie VIII – Vol. 13: 105- 120 - Accademia dei Georgofili, Firenze 2018. ISBN 978-88-596-1876-8*
- Zaninelli M., Redaelli V., Luzi F., Mitchell M., Bontempo V., **Cattaneo D.**, Dell'Orto V., Savoini G. (2018). Development of a machine vision method for the monitoring of laying hens and detection of multiple nest occupations. *Sensors*. 2018; 18(1):132. <https://doi.org/10.3390/s18010132>
- Zaninelli M., Redaelli V., Luzi F., Bronzo V., Mitchell M., Dell'Orto V., Bontempo V., **Cattaneo D.**, Savoini G. (2018). First evaluation of infrared thermography as a tool for the monitoring of udder health status in farms of dairy cows. *Sensors*. 2018; 18(3):862. <https://doi.org/10.3390/s18030862>
- Bontempo V., Comi M., Jiang X.R., Rebucci R., Caprarulo V., Giromini C., Gottardo D., Fusi E., Stella S., Tirloni E., **Cattaneo D.**, Baldi A. (2018). Evaluation of a synthetic emulsifier product supplementation on broiler chicks. *Animal Feed Science and Technology*, 240: 157-164
<https://doi.org/10.1016/j.anifeedsci.2018.04.010>
- Castrica M., Rebucci R., Giromini C., Tretola M., **Cattaneo D.**, Baldi A. (2018). Total phenolic content and antioxidant capacity of agri-food waste and by-products . *Italian Journal of Animal Science*, DOI: [10.1080/1828051X.2018.1529544](https://doi.org/10.1080/1828051X.2018.1529544)
- Savoini G., Baldi A., Bellagamba F., Bontempo V., **Cattaneo D.**, Vasconi M., Moretti V.M. (2019). I grassi animali: fonti ed utilizzi. In: *Oli e Grassi* , G. Mosca ed., Edagricole- New Business Media, Bologna: 241-254.